

**AMENDMENTS TO THE CLAIMS:**

Please amend claims 1, 3-4, 7, 9, 11-13, 16-17, 19, 21, 26-27, and 29 as follows.

1. (Currently Amended) A method comprising:

identifying a communication capability of a remote device; ~~and~~  
dynamically generating a virtual data sub-channel within a physical Ethernet data channel  
~~virtual channel within an Ethernet channel~~ over a communication link between a communication  
interface and the remote device, wherein a data rate of the virtual channel is selected based, at  
least in part, on the identified communication capability of the remote device;  
parsing the physical data channel into a plurality of timeslots based, at least in part, on the  
identified communication capability of the remote device; and  
assigning a communication session to one or more of the timeslots denoted by address  
information associated with at least the remote device.

2. (Original) A method according to claim 1, wherein the communication link is an  
802.3ae compliant communication link, with a data channel of 10Gb/s.

3. (Currently Amended) A method according to claim 1, wherein identifying a  
communication capability of the remote device comprises:

sending a capability request; and  
receiving a response to the request denoting at least the ~~communications~~ communication  
capability of the remote device.

4. (Currently Amended) A method according to claim 1, wherein identifying a communication capability of the remote device comprises:
- receiving an indication from the remote device denoting at least the ~~communications~~ communication capability of the remote device.
5. (Original) A method according to claim 4, wherein the indication also denotes a processing capability of the remote device.
6. (Original) A method according to claim 1, wherein at least the communication capability of the remote device is obtained by the communication interface through a negotiation process.
7. (Currently Amended) A method according to claim 1, wherein dynamically generating the virtual data sub-channel within the physical Ethernet data channel ~~the virtual channel within a physical Ethernet channel~~ comprises establishing a sub-10Gb/s virtual data channel within a physical 10Gb/s data channel based, at least in part, on the identified communication capability of the remote device.
8. (Original) A method according to claim 7, further comprising:
- identifying a processing capability of the remote device by the communication interface;
- and
- modifying a virtual channel data rate based, at least in part, on the identified processing capability of the remote device.

9. (Currently Amended) A method according to claim 7, wherein establishing the virtual channel comprises:

~~parsing the physical channel into a plurality of timeslots based, at least in part, on the identified communication capability of the remote device; and~~

assigning one or more of the plurality of ~~generated~~ timeslots to carry substantive content ~~as the virtual channel~~, while remaining timeslots do not carry substantive content.

10. (Original) A method according to claim 9, wherein substantive content is content associated with a communication session between the communication interface and the remote device.

11. (Currently Amended) A method according to claim 9, wherein parsing the physical channel comprises:

determining a fraction of the physical channel required to support the virtual channel; and  
~~timeslicing~~ parsing the physical channel into a number of timeslots, each timeslot corresponding to the fraction.

12. (Currently Amended) A method according to claim 9, wherein parsing the physical channel comprises:

~~timeslicing~~ parsing the physical channel into a predetermined number of timeslots.

13. (Currently Amended) A method according to claim 9, wherein parsing the physical channel comprises:

~~timeslicing~~ parsing the physical channel into at least ten (10) timeslots, each associated with roughly a 1Gb/s communication rate.

14. (Original) A method according to claim 7, wherein establishing the virtual channel comprises:

selecting one or more 1Gb/s media access controller(s) (MAC) or a 10Gb/s MAC with which to establish the virtual channel; and

dynamically multiplexing either the 1Gb/s MAC(s) or the 10Gb/s MAC to an appropriate one or more channel(s) of an attachment unit interface (AUI).

15. (Original) A method according to claim 14, the attachment unit interface comprising:

at least four (4) 10Gb/s attachment unit interface (XAUI) channel(s), wherein content from up to two (2) 1Gb/s MAC(s) are selectively routed through each of the four XAUI channels such that each XAUI channel supports virtual channels of 1Gb/s resolution.

16. (Currently Amended) A storage medium comprising content which, when executed by an accessing computing appliance, causes the appliance to implement a scalable network interface to establish a virtual channel within a physical Ethernet channel based, at least in part, on at least an identified communication capability of a remote network element and to parse the physical data channel into a plurality of timeslots based, at least in part, on the identified communication capability of the remote device.

17. (Currently Amended) A storage medium according to claim 16, wherein the physical Ethernet channel is a 10Gb/s data channel, while the virtual channel is a sub-10Gb/s data

channel, wherein ~~a size~~ the size of the virtual channel is selected to correspond with the identified communication capability of the remote network element.

18. (Original) A storage medium according to claim 16, the scalable network interface comprising negotiation feature(s) to identify one or more of a communication capability of a remote device and a processing capability of a remote device.

19. (Currently Amended) A storage medium according to claim 16, wherein the scalable network interface assigns one or more of the timeslots to carry content for a communication session ~~establishes a virtual channel by parsing the physical Ethernet channel into a number of timeslots, wherein the number is derived from the identified communication capability of the remote device.~~

20. (Original) A storage medium according to claim 16, wherein the scalable network interface establishes a virtual channel by dynamically selecting between one or more 1Gb/s media access controller(s) (MAC) or a 10Gb/s MAC, and dynamically routes content from the selected MAC(s) through one or more attachment unit interface (AUI) channel(s), as appropriate.

21. (Currently Amended) An apparatus comprising:  
control logic, to identify a communication capability of a remote device communicatively coupled with the apparatus through a communication link; and  
a media access controller (MAC), responsive to the control logic, to selectively parse the physical data channel into a ~~number~~ plurality of timeslots and populate only a subset of the plurality of timeslots with ~~substantive~~ data associated with a communication session with the

remote device to create a virtual channel within the physical channel when the identified communication capability of the remote device is less than that of the physical channel.

22. (Original) An apparatus according to claim 21, wherein the control logic invokes auto-negotiation feature(s) to identify at least the communication capability of the remote device.

23. (Original) An apparatus according to claim 21, wherein the number of timeslots is predetermined.

24. (Original) An apparatus according to claim 21, wherein the MAC derives the number of timeslots required from the identified communication capability of the remote device.

25. (Original) An apparatus according to claim 21, wherein the MAC is a 10Gb/s MAC.

26. (Currently Amended) An apparatus comprising:

control logic, to identify a communication capability of a remote device communicatively coupled with the apparatus through a communication link; and

a plurality of media access controllers (MACs), ~~controller (MAC) types~~, responsive to the control logic, ~~switchably~~ selected by the control logic to establish a 10Gb/s physical channel, or a sub-10Gb/s virtual channel within the 10Gb/s physical channel to facilitate communication from the apparatus to the remote device based, at least in part, on the identified communication capability of the remote device.

27. (Currently Amended) An apparatus according to claim 26, further comprising:

an attachment unit interface (AUI), ~~switchably~~ coupled with the MAC(s), the AUI having four (4) 10Gb/s attachment unit interface (XAUI) channels, each channel supporting up to 2.5Gb/s communication rates which are aggregated to provide the 10Gb/s physical channel.

28. (Original) An apparatus according to claim 27, wherein the plurality of MAC(s) include 1Gb/s MAC(s), and wherein one or more 1Gb/s MAC(s) are dynamically selected to establish a sub-10Gb/s virtual channel within the 10Gb/s physical channel.

29. (Currently Amended) An apparatus according to claim 28, wherein up to two 1Gb/s MAC(s) are ~~switchably~~ coupled to a XAUI channel, wherein when so ~~switchably~~ coupled each XAUI channel selectively provides 1Gb/s virtual channel resolution within the 10Gb/s physical channel.